

HAMATEURCHATTER

One of the World's Oldest Continuously Active Radio Amateur Clubs - since 1917

Vol.12 No. 06 - June, 2004

MRAC Officers

President	
Kevin Reemes	KC9BZU
Vice Pres.	
Brian White	K9LCQ
Secretary	Tom Schulte
AB9EK	
Treasurer	Joe Schwarz
N9UX	

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('03-'05)	
Tom Fuszard	KF9PU
('02-'04)	
Mark Tellier	AB9CD
('02-'04)	
Jerry Wahlen	WA9CGE
('03-'05)	
Dick Wood	W9JBE
('03-'05)	

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HamateurChatter Emailings and database

Joe Schwarz	N9UX
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Regular Mailings

Dick Wood	W9JBE
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PATRICK, W9UQ, STILL PIC

In the April edition of the 'Chatter there was an article written a year ago by Patrick, W9UQ, and published within the Chatter at that time. In his article Patrick made observations and requests that are as valid today as they were then. I took that article and added a few comments of my own and gave credit to Patrick for his original article.

It seems that some readers came away with the opinion from reading the article that I am now the PIC for Wisconsin. **This is not true. Patrick, W9UQ is still the appointed individual.**

I wish to apologize for any misunderstanding that this article may have generated. The final paragraph should have read as follows.

Which of you knows someone in the Media? We need to establish as many Media

contacts as possible - the ARRL provided an article titled "Its Not Just for Field Day" that should remind us all that we all have another job/responsibility in Amateur Radio.

Patrick, W9UQ, is the ARRL Public Information Coordinator for Wisconsin (PIC for short) and that means that we need to assist Patrick to get local media to recognize us and to laud our accomplishments to the public at large! This means that Amateur Radio needs help from you! So - Who of you knows someone in the Media (newspapers, TV, radio, etc.)? It would benefit the club and Amateur Radio as a whole if more accomplishment related articles made it into the local papers and radio/TV media, besides Field Day that is. Let Patrick know if and how you can help.

Brian K9LCQ

K9LCQ

SORRY!

It's my fault that this clarification didn't get into last month's 'Chatter. **Sorry!**

Pancho - KA9OFA

Pancho

EXPRESIDENT'S LETTER

10 June, 2004

The good news is that the economy seems to be on the mend. The bad news, for me anyway, is that my workload has picked up to a point that my "spare time" has trickled to very minimal levels. This unfortunately means that my hobbies such as ham radio have taken a real hit.

I have been out of the country about 50% of the time this year. Although I get to see interesting things in far off lands, I often get homesick thinking about going down into the basement and tinkering with some old Motorola radio or tuning through 40 meters looking for nice CW QSOs, or going to an MRAC meeting to learn something new and have a chat with friendly folks.

I am hopeful that my work will settle down a bit in the next few months so I can get caught up on various things with two teen-

continued on Pg 2

Club/VEC Phone no. is
(262) 332-MRAC or
(262) 332-6 7 2 2

Visit our website at:
<http://www.qsl.net/mrac/>

Address correspondence to:

M. R. A. C.

P.O. Box 070695

Milwaukee, WI 53207-0695
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MILWAUKEE AREA NETS

DAY	TIME	MHz	ACTIVITY
Daily	5:00 - 7:15 AM	3.985	Badger Weather Net
Daily	6:00 PM	1.895	MidEast 160 m. Net
Daily	6-8:00 AM	14.290	Wisconsin/Florida (SSB)
Daily	7:30 AM	144.155	Breakfast RoundTable (SSB)
Daily	6:30 PM	3.645	WI Slow Speed CW Traffic
Daily	9:30 PM	3.9725	Country Cousins Net
Mon.-Sat.	12:00 PM	28.380	10/10 International Net
Mon.	8:00 PM	3.994	Tech Net
Mon.	8:00 PM	146.865-	ARES Net (Walworth and ARRL news)
Mon.	8:00 PM	146.445	Emergency Net
Mon.	8:45 PM	146.670-	ARRL voice news (ARES)
Mon.	9:00 PM	50.160	6 m.SSB NET
Mon.	9:00 PM	146.670-	ARES Net (Milwaukee-Waukesha)
Tue.	9:00 AM	50.160	6 Mtr. 2nd Shifters' SSB Net
Tue.	8:00 PM	144.250	Badger Contesters (SSB)

DAY	TIME	MHz	ACTIVITY
Tue.	8:00 PM	7.035	A.F.A.R. (CW)
Tue.	8:30 PM	223.500	X-Country Simplex Group (FM)
Tue.	9:00 PM	50.160	6 m. SSB Net.
Wed.	8:00 PM	28.365	10/10 Internat. (Milw. Ch.) (SSB)
Wed.	8:00 PM	145.130	ARRL voice news
Wed.	8:00 PM	147.270+	Weather & Swap net.
hu.	9:00 PM	50.160	6 mtr. SSB Net.
Thu.	9:00 PM	146.910-	Computer Net
Fri.	8:30 PM	28.490	MRAC W9RH 10 m. Net (SSB)
Fri.	9:00 PM	145.390-	W9RH 2 m. FM Net after 10mtr.
Sat	9:00 PM	146.910-	Saturday Night Fun Net
Sun.	8:30 AM	3.985	QCWA (Chptr 55) (SSB)
Sun.	9:00 AM	145.565	X-Country Simplex Group (FM)
Sun.	10:00 AM	443.800+	FM-38 link to 146.88 Bar. SWAP Net
Sun.	8:00 PM	28.365	10/10 Int. (MKE Ch.) (SSB)
Sun.	8:00 PM	146.910-	Information Net
Sun.	9:00 PM	146.910-	Swap Net

2 meter repeaters are offset by 600KHz -- 70 centimeter repeaters are offset by 5 MHz
SSB frequencies below 20 meters are LSB and for 20 mtrs and above are USB

HAMATEUR CHATTER

is the newsletter of MRAC (Milwaukee Radio Amateurs' Club) which is a not for profit organization for the advancement of amateur radio and the maintenance of fraternalism and a high standard of conduct.

MRAC Membership dues are \$17.⁰⁰ per year and run on a calendar year starting with January 1.

MRAC general membership meetings are normally held at 7:00 PM. the last Thursday of the month except for December and are held at:

Redemption Lutheran Church
Fellowship Hall
4057 N. Mayfair Rd.
Milwaukee, WI

ExPres. letter cont.

age sons, and maybe even do other things like attending MRAC meetings. Until then, I have a couple of other countries to visit.

I was on the lookout for ham radio antennas in Brazil, but I did not see anything. Later this year I have some work in Korea. I had noticed quite a few mobile ham operators in Korea, all with their call signs displayed on the back window of their cars. I will see if I can meet up with some Korean hams on my next trip, and give a report on Korean Ham Radio and mix a little pleasure with business.

It has been interesting and fun serving as an MRAC officer, but unfortunately I was not able to serve in any meaningful way, and hope you will accept my apology.

I would like to thank Brian, K9LCQ for filling in as MRAC president, and also thank the other officers and board members for their commitment to the club for all of us to enjoy.

Kevin - KC9BZU



MEMBERSHIP MEETING MAY 27, 2004

Mark, AB9CD, called the meeting to order at 7:10 pm. Kevin, KB9BZU the club's president, was not present and Brian, K9LCQ the club's vice president, had lost his voice. The microphone was passed for introductions.

Tom, AB9EK, read the minutes from the April club meeting. A motion was made by Pancho, KA9OFA, and seconded by Jerry, WA9CGE, to accept the minutes as read. Motion passed.

Joe, N9UX gave the treasurer's report. A motion was made by Pancho, KA9OFA, and seconded by Mike, KC9CMT, to accept the report as read. Motion passed.

Jerry, WA9CGE, reported on the club's upcoming **Field Day/Club picnic on June 26 and 27 at Pioneer Village**. Everyone is invited to attend. Remember the **club's picnic**

is on **Saturday June 26th rain or shine**. We are indoors; so don't let the rain (nice sunny dry weekend, right!) stop you from attending.

Sherm, KB9Q, had a question on the club's repeater. He stated that he has had some trouble hearing the repeater in some locations that he had heard it before. Mark stated that the repeater is working fine.

May is election time for club officers and two directors. There were no more nominations for club officers or directors so nominations were closed. The following were nominated for club officers:

President: VACANT

Vice President: Howard Parks, AB9FH - elected unanimously.

Secretary: Tom Schulte, AB9EK - elected unanimously.

Treas.: Mark Tellier, AB9CD - elected unanimously.

The following were nominated for Directors:

D.J., KC9AYO with 16 votes.

Joe Sturmberg, KA9DFZ with 30 votes.

Hal Newton, KB9OZN with 34 votes.

Dave Griffin, KB9PRF with 15 votes.

The two new Directors are Joe, KA9DFZ and Hal, KB9OZN.

A motion to adjourn was made by Pancho and seconded by Fred, KC9WW at 7:33 pm.

Meeting adjourned. The program for the night was the club's auction.

Respectfully submitted,



Tom Schulte, AB9EK
Club Secretary

AUCTION HIGHLIGHTS

At our May meeting, the MRAC held its annual auction. Thanks to the generosity of our members, we raised \$196 for the club. We had a wide variety of items for sale this year: books, power supplies, oscilloscopes, antennas, and those miscellaneous items no one seems to be able to identify!

I would like to personally thank those who brought items for sale and all the folks who showed up and bought items. I would also like to thank Dave

DeFebo, WB9BWP, who as our auctioneer provided all the colorful descriptions of the unusual items.

The auction is one of my favorite events of the year and I hope everyone had a great time!



Joe Schwarz, N9UX

UNDERSTANDING DIGITAL VIDEO PROJECTORS

If you've been to a recent field day or some of our meeting presentations, then you've seen the capabilities of a digital video projector (DVP). They allow computer displays and TV images to be projected on a large scale with wide viewing angles allowing large groups to clearly see the video content. While relatively simple in function, there are many specifications to consider when choosing a DVP. We'll examine some of these choices.

There are different categories of DVPs for differing applications. These include Front Projection TV / HDTV, Rear Projection and Presentation Graphics Projectors. This discussion will focus on presentation projectors, as they are typically more portable and most often associated with use on computers.

There are 2 dominant technologies in digital projection: LCD and digital light processors (DLP). LCD projectors use small transmissive LCD displays to create their digital images. These projectors work as follows: A projection lamp provides a white light source; this light is split into the 3 primary colors (red, green, and blue); the light for each color is projected through a grayscale LCD display which modulates the amount of that color needed for the desired image; and finally the 3 modulated colors are then optically recombined and projected for display. DLPs are similar in concept, but different in implementation. A DLP projector uses an array of digitally controlled micro-mirrors, constructed with micro-electro-mechanical semiconductor (MEMS) technology. Using a grid of (very) tiny mirrors that can each be quickly tilted (typically in 15 μ s), the light can be reflected as required to create the desired image. The rate of the mirror 'tilting' is used to modulate the amount of light reflected for the desired image. For more details on how these MEMS devices work in this

application take a look at the web site: <http://entertainment.howstuffworks.com/projection-tv5.htm>.

Because MEMS devices are constructed much like semiconductors, the size and cost of these devices are being reduced while the scale and resolution is being increased. DLP technology is the basis for the newer and lower cost projectors. For more detail on DLP technology look at this web site: http://www.dlp.com/dlp_technology/dlp_technology_overview.asp,

Both technologies rely heavily on digital processing to provide images that may be adjusted for color, smoothing of color transitions, brightness, contrast, image position and other functions associated with CRT displays. While digital at heart, projectors must provide the familiar analog adjustments that consumers know and love.

Beyond the functions and controls there are other specifications to consider when choosing between different DVPs.

Brightness

Projector light output is measured in ANSI Lumens, or simply "lumens" - the higher the number, the brighter the light output. In general, when choosing between projectors with similar specifications, the ones with a higher lumen rating will cost more. The advantage of a bright projector is that it can be used with the room lights on so people can interact with one another and take notes. I found the following guidelines on the web:

- Projectors of less than 800 lumens are good for small groups in conference rooms where the lights are off, or the room is dimly lit.
- Projectors in the 800 to 1500 lumen range are best for moderate sized conference rooms or classrooms. Lights should be lowered somewhat for best image quality, but ambient light can be

high enough to allow people to see one another and interact.

- Projectors in the 1500 to 3000 lumen range are high performance units that can be used in most indoor lighting conditions.
- Projectors above 3000 lumens are ultra-high performance machines that are used for larger venue applications.

Resolution

Resolution refers to the number of pixels, or dots, the projector uses to create the image on the screen. The more pixels, the "higher" the resolution. In general, the higher the resolution, the more the projector will cost. The benefit to higher resolution projectors is that they can show small details with more sharpness and clarity.

Resolution is typically quoted in two numbers, such as 800 x 600, where the 800 is the number of pixels from side to side across the screen, and 600 is the number of pixels vertically from top to bottom. Some of the common classes of resolution include:

VGA, or 640 x 480: This is the lowest and least expensive resolution class. No data projectors are made today in this resolution, but there is used VGA-resolution equipment on the market.

SVGA, or 800 x 600: An economical choice, and currently the second most popular resolution, SVGA is ideal for business "Powerpoint™" style presentations with graphs, pie charts, and large text bullet items.

XGA, or 1,024 x 768: These higher resolution products are currently the most popular models on the market. They are more expensive than SVGA, and are better for displaying presentation material that has a lot of small detail, like spreadsheets and text.

WXGA, or wide XGA: These projectors are typically targeted for HDTV because they are designed with a 16:9 aspect ratio display; however, they can

be used in most any data and video application. This is an emerging breed.

SXGA, or 1,280 x 1,024: These high resolution products are targeted for a wide range of high end personal computer and low end workstation users. They are used primarily for command and control, engineering and CAD/CAM applications where acute resolution of small details is important.

WSXGA, or wide SXGA: Like WXGA, these projectors are typically targeted for HDTV because they are designed with a 16:9 aspect ratio display; however, they can be used in most any data and video application.

UXGA, or "1,600 x 1,200" – This very high resolution projector is designed for workstation applications that are detail or information intensive. These are expensive projectors that support a broad range of computer equipment. Relatively few products on the market have this native resolution.

Zoom Lens

A zoom lens allows you to change the size of the projected image without having to change the position of the projector. A typical zoom lens will allow you to vary the image size by 20% to 60% depending on the lens design. For example, a 1.3:1 zoom ratio allows a 30% change in image size.

Keystone Correction

Keystone correction is a feature that allows adjustments to make a projected image rectangular. In order for a projected image to be rectangular, the projector must be positioned level with and perpendicular to the viewing surface or screen. Since this is not always possible, many projectors are equipped with a feature that allows the image to be keystone corrected (made rectangular) by adjusting optics, making mechanical adjustments, or applying digital correction to the image.

Keystone correction can be performed on the horizontal or vertical dimensions using manual or automatic adjustments – this varies by projector

model and manufacturer.

Weight

Weight is an important consideration if you intend to be moving the projector around, or traveling with it. There are four weight categories of projectors:

- **Ultra-portable:** Less than 6 lbs. These are best for the frequent traveler.
- **Portable:** 6 to 15 lbs. With additional weight, you generally get higher brightness and more features. Depending on how much you travel with it, you may want the extra performance, and be willing to carry the extra weight.
- **Semi-portable:** 15 to 25 lbs. These are primarily for conference room and classroom use. Quite often they are ceiling mounted, but they can be moved from room to room without too much difficulty. However, you will not want to do much traveling with them.
- **Fixed installation:** above 25 lbs. For applications in which portability is irrelevant, there are many heavier, and generally higher performance products on the market.

FCC Class A or B

FCC Class B is a United States FCC standard that manufacturers of projectors must meet for limiting electrical interference that can be emitted from a projector. The reason it is important for Home Theater is that the FCC will not allow United States projector dealers to sell a projector for home use that does not meet FCC Class B requirements. A projector that meets FCC Class A requirements can be sold to businesses, schools, and churches but not homes.

Projector Lamp

Projector bulbs, usually called projector lamps, are one of the few user replaceable projector parts. Unlike a car headlight or standard light bulb, a projector replacement lamp varies by model. If the projector image begins to dim, the lamp may need to be replaced.

Projector bulbs have an expected operating time, called lamp life. This value is expressed in number of hours - typically 1000 to 2000 hours. Newer models are claiming 4000 hours of lamp life and more. The lamp's success rate is based on a bell curve, so that a majority of (but not all) lamps will meet the lamp life hours specified. Some lamps will fail sooner and this is part of the acceptable operating range of the rating. For projectors that are used under normal operating conditions (no more than three to five hours per day in a clean, relatively dust-free environment) the lamp will have the greatest likelihood of lasting through its entire rated lamp life. Projectors that are used more often or are exposed to environmental contaminants are more likely to show a decrease in lamp life. Projectors that are operated 24 hours a day, 7 days a week are at the highest likelihood of lamp failure before the end of the rated hours.

To get the rated life from the lamp, it is important to not allow the projector to become overheated. The number one cause of lamp failure is excessive heat. Also, power down the projector in a manner to ensure that the projector has had an adequate cool-down period and lastly, operate the projector in a clean, relatively dust-free environment. Clean the air filters regularly.

Accessories

Like all electronic gadgets, DVPs have their associated accessories. Items include remote controls, replacement lamps, optional lenses, lens covers, and carry cases.

Conclusion

Of course this article has only touched on some of the items to consider when choosing a DVP. I hope you have a basic understanding of the differences between the many projectors available in the marketplace.

Mark - AB9CD

FIELD DAY - W9RH JUNE 26 & 27, 2004

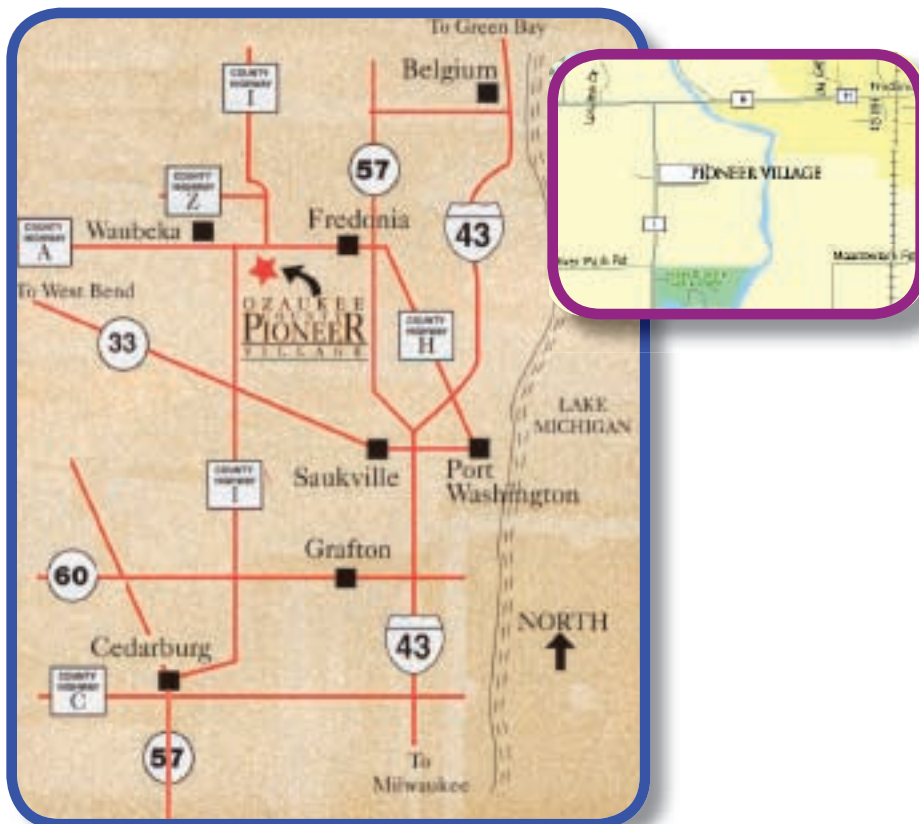
QUESTIONS? - QUESTIONS? - QUESTIONS?

- Have YOU ever setup a HAM station, antennas, or operating positions?
- Have YOU ever operated a HAM station on the HF and VHF/UHF frequencies?
- Have YOU ever been to the M.R.A.C. summer picnic?
- Have YOU ever operated, or wanted to operate, your own equipment on Field Day?
- Have YOU ever operated (or tried to operate) in a contest?

If your answer is YES or NO, to any of the above, why don't you take some time and come to the MRAC Field day operation at Pioneer Village in Ozaukee County?

We will **start** setting up antennas, etc., on **Saturday, June 26, at 8:00 A.M.** We will start operating at 1:00 P.M. and continue through to 1:00 P.M., Those who participate or assist us on Saturday are welcome to join us for lunch that afternoon.

Basically, you can take County **Hwy I** north from Cedarburg approximately 10 miles to Pioneer Village.



Jerry, WA9CGE

Credits

Our thanks to our news contributors this month:

KC9BZU	AB9EK	K9LCQ
AB9CD		N9UX
WA9CGE		KF9XL

Thanks also to Rita Doneis and Tom Fuszard for help in the proofreading dept. Our thanks goes to Dick Wood for making sure that the 'Chatter gets printed, stamped and mailed and to Mark Tellier who Emails it.

Thanks also goes to Howard Parks who administers our website.

Thanks also to Ted Stiller for obtaining and serving refreshments at our meetings.

Thanks also goes to Tom Sherlowsky and Jacquie Horwitz for taking care of the raffle at the meetings.

Thanks to Mark Tellier, Tom Czaja, John Kraak and Tom Fuszard who are our VEC's

***T h a n k
Y O U !***

REMINDER

Check in to our nets on Friday evenings.

The **Ten Meter SSB** net is at **8:30 PM** on **28.490 Mhz. SSB**

Our **Two Meter FM** net follows at **9:00 PM** on our repeater @ **145.390 MHz** with a **- offset** and a **PL of 127.3 Hz**

Join us for Saturday morning breakfast at Maxim's Restaurant, 18025 W. Capitol Dr. We usually meet at **8:00 AM**, and **order** around **8:15 AM**. Good food and Fellowship are a given.

EVENTS

* = VE Testing

June MRAC General Meeting
Thu. - June 24, 2004
Redemption Lutheran Church
Milwaukee, WI

MRAC Field Day
SAT & SUN - JUNE 26 & 27
Pioneer Village
Cedarburg, WI

SMARC Swapfest
SAT. - JULY 10, 2004
American Legion Post 434
Oak Creek, WI
T/I on 146.52 simp.

July MRAC General Meeting
Thu. - July 29, 2004
Redemption Lutheran Church
Milwaukee, WI

Circus City SwapFest *
SAT. - AUG. 14, 2004
SAUK CO FAIRGROUNDS
Baraboo, WI
T/I on 147.315 + rpt. PL 123.0 Hz

August MRAC General Meeting
Thu. - August 26, 2004
Redemption Lutheran Church
Milwaukee, WI



Radio Expo 2004 *
SAT. & SUN - SEP. 18 & 19, 2004
Lake Co Fairgrounds
Grayslake, IL
T/I on 146.16/76 MHz (107.2 Hz PL)

Peoria SuperFest
FRI. - SUN. - SEP. 17 - 19, 2004
Exposition Gardens Fairgrounds
Peoria, IL
T/I on 147.075(-)

'CHATTER DEADLINE

The deadline for items to be published in **HamateurChatter** is the 7th day of each month. If you have anything for the 'Chatter, please get it to me before then.

You may contact me by email at:

pancho@thepark.net

or by snailmail at:

Pancho Doneis - KA9OFA
1958 N. 38th St.
Milwaukee, WI 53208

or by phone at:

(414) 344-4694

VEC News

MRAC VEC conducted VE testing on May 29, 2004 at AES.

There were 14 examinees, and 7 were successful in upgrading or in qualifying for their initial license. Seventeen elements were given, and 10 were passed.

Assisting at the session were the following VEs:

Tom Czaja..... KG9EE
Bob Immekus W9CYI
John Kraak KF9XL
Patrick Moretti W9UQ
Hal Newton KB9OZN
Tom Schulte..... AB9EK
Sherm Swanson KB9Q
Mark Tellier..... AB9CD



As for future VE testing, we have **NO TESTING scheduled for June.** Our next exam session will be Saturday, **July 31, 2004 at 9:30AM at AES.** At that session, we will be using the new EL3 (General) class exams. Have a great summer.

73,

John (KF9XL)

John, KF9XL

VEC TESTING

- **Sat. - July 31, 2004**
9:30 AM @ AES

AES = Amateur
Electronic Supply

5710 W. Good Hope Rd.
Milwaukee, WI

The **next Meeting of M.R.A.C.**
will be **Thursday - June 24, 2004**
at **7:00 PM** at:

Redemption Lutheran Church

Fellowship Hall

4057 N. Mayfair Rd.

(Use the South entrance)

HANDICAPPED ACCESSIBLE

Please don't call the church.

Field Day is
Sat. and Sun.,
June 26 and 27, 2004
For more details, see page 6.

The program for the
June 24th MRAC
general meeting
will be
Field Day plans by
Jerry - WA9CGE,
Field Day Chairman



M.R.A.C.
Milwaukee Radio Amateurs' Club
P.O. Box 070695
Milwaukee, WI 53207-0695